Foundational Courses

TEIT 1050 Career and Workplace Relations **1 Credit / 30 Clock-Hours**

Career and Workplace Relations is designed to help students gain insight into how their skills and professionalism enhance relationships between management and coworkers. Instruction includes employment skills such as communication, critical thinking, professional etiquette, team dynamics and more.

Objectives:
• Identify personal and transferable skills, competencies and/or abilities.
• Create an industry specific resume, cover letter, thank you letter, reference list, and online presence.
• Demonstrate effective interviewing skills.
• Submit an application for an industry specific position.
• Demonstrate effective use of job search websites.

TEIT 1170 Computer Networks I **2 Credits / 60 Clock-Hours**

Computer Networks I explores common computer networking models, network device installation and configuration, switching and routing technologies, IP address configuration, basic wireless network configuration, and network troubleshooting tools and methodology. This course aligns with objectives from popular networking certifications.

Objectives:
• Differentiate the purpose of each layer in the Open Systems Interconnection (OSI) model.
• Install and configure common networking devices, components, and services.
• Identify characteristics of switching and routing technologies and features.
• Plan and configure IPv4 and IPv6 network addresses and services.
• Configure a small office/home office (SOHO) wireless network.
• Use the appropriate methodology, tools, and protocols to troubleshoot and resolve networking issues.

TEIT 1200 A+ Core I **3 Credits / 90 Clock-Hours**

A+ Core I prepares students to be successful computer technicians, capable of installing, maintaining, troubleshooting, optimizing, and securing desktop computers, laptops, mobile devices, and printers. This course aligns with objectives of the CompTIA A+ Core 1 certification exam.

Objectives:
• Install and configure computer hardware components and peripheral devices.
• Identify and configure basic networking components and protocols.
• Install and configure laptops and other mobile devices.
• Diagnose and troubleshoot device and network issues.
• Compare and contrast cloud computing concepts.
• Configure client-side virtualization.

TEIT 1210 A+ Core II **3 Credits / 90 Clock-Hours**

A+ Core II is a follow-up to A+ Core1 and provides further instruction on installation, configuration, maintenance, and security of various common operating systems and platforms. This course aligns with the objectives of the CompTIA A+ Core 2 certification exam.

Objectives:
• Install and Configure Windows, Mac, and Linux.
• Identify best practices for safety, environmental impacts, communication, and professionalism.
• Troubleshoot common operating system, malware, and security issues.
• Identify basic vulnerabilities and protect against threats.
• Install, configure, and maintain software in computers and mobile devices.

TEIT 1300 Linux Foundations **2 Credits / 60 Clock-Hours**

Linux Foundations focuses on the installation, configuration, and process management of a Linux workstation. Students explore shell programming, file system management, user accounts, access and permissions, and application installation and management.

Objectives:
• Install and maintain a Linux workstation.
• Configure Linux from the GUI and command line.
• Configure file and access permissions.
• Perform maintenance tasks including user management, backup and restore, shut down, and reboot.

TEIT 1400 Introduction to Cloud **2 Credits / 60 Clock-Hours**

Introduction to Cloud provides instruction on core cloud computing concepts, services, and solutions as well as foundational knowledge from a business value perspective of the benefits and considerations for cloud computing implementation. Included is an overview of popular cloud platforms.

Objectives:
• Define the value proposition of cloud computing.
• Identify core cloud concepts, services, solutions, and management tools.
• Demonstrate an understanding of cloud security considerations, features, and best practices.
• Describe cloud identity, governance, privacy, and compliance concepts and features.
• Compare and contrast cloud pricing models and identify cost management solutions.
• Define cloud deployment models, methods, and operations.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

TEIT 2200 Security + **4 Credits / 120 Clock-Hours**

Security+ provides instruction on assessing the security posture of enterprise environments and implementing appropriate security solutions. Instruction is given to identify, analyze, and respond to events and incidents. This course aligns with the objectives of the CompTIA Security+ certification exam.

Objectives:
• Explain security functions and purposes as they relate to network devices.
• Identify and implement risk mitigation techniques and strategies.
• Distinguish and evaluate different network and physical security threats.
• Implement network intrusion detection and prevention technologies.
• Identify and execute appropriate cryptography measures.

Supplemental Courses Varies by Institution

Davis

TEIT 1000 Information Technology Fundamentals **2 Credits / 60 Clock-Hours**

The Information Technology Fundamentals course provides an overview of the various career pathways related to working with computers. Throughout the class, students will be introduced to computers, including their history, hardware, operating systems, system support, programming languages, software, databases, networking, data storage, and system security. During this course, the student will perform essential IT tasks commonly performed by end-users and entry-level IT professionals.

Objectives:
• Identify the major components of a computer and understand their function.
• Compare and contrast the differences between various operating systems.
• Demonstrate an understanding of basic principles of software and database development.
• Identify foundational terms used in computing.
• Identify security issues affecting the use of computers and networks.

TEIT 1040 Introduction to Virtualization **1 Credit / 30 Clock-Hours**

Introduction to Virtualization explores what virtualization is and the critical role it plays in IT. Learn how to install, configure, and maintain virtual machines as well as the availability, applications, and virtual appliances, including their role in virtualization.

Objectives:
• Explore virtualization and the benefits gained from a virtual environment.
• Demonstrate how to enable virtualization on a host system.
• Install operating systems on virtual machines.
• Import/Export virtual machines for use in different virtualization platforms.
• Configure basic processing, memory, storage, and networking in a virtual environment.
• Demonstrate how to copy, backup, and restore virtual machines.

TEIT 1150 Cisco CCNA Introduction to Networks **3 Credits / 90 Clock-Hours**

CCNA Introduction to Networks curriculum introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the Internet and across modern computer networks. Learn to build simple local area networks (LANs) that integrate IP addressing schemes, configure foundational network security, and perform basic configurations for routers and switches.

Objectives:
• Build simple LANs, perform basic configurations for routers and switches, and implement IPv4 and IPv6 addressing schemes.
• Configure routers, switches, and end devices to provide access to local and remote network resources and to enable end-to-end connectivity between remote devices.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Configure and troubleshoot connectivity of a small network using security best practices.

TEIT 1160 Cisco CCNA Switching, Routing, and Wireless Essentials (SWRE) **3 Credits / 90 Clock-Hours**

The Cisco CCNA Switching, Routing, and Wireless Essentials (SWRE) course focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area network (WLAN) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate local area network (LAN) security threats, and configure and secure a basic WLAN.

Objectives:
• Utilizing routers, switches and wireless devices, configure and troubleshoot VLANs, Wireless LANs and Inter-VLAN routing.
• Configure and troubleshoot redundancy on a switched network using STP and EtherChannel.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.

TEIT 1260 Data Privacy in a Data-Driven World **1 Credit / 30 Clock-Hours**

This course equips students with essential knowledge of the evolving data privacy landscape and best practices for protecting information in an increasingly digital world. Students learn foundational privacy concepts and examine real-world cases illustrating issues in emerging technologies such as AI, the commercial market for personal data, and strategies for reducing digital footprints and securing devices and accounts. The course also introduces major privacy laws and frameworks, including UCPA, HIPAA, and GDPR, as well as organizational practices such as threat modeling, minimizing data collection, implementing retention policies, and incident response and disclosure fundamentals.

Objectives:
· Define data privacy and distinguish it from security while classifying common categories of personal data.
· Explain how personal data is collected, shared, and monetized, and evaluate strategies to increase privacy and limit data collection.
· Describe major privacy laws and frameworks and summarize their implications for individual rights and organizational responsibilities.
· Analyze privacy risks and the impacts of data breaches, and outline key steps and obligations in incident response and disclosure.
· Examine emerging privacy challenges related to advancing technologies and the relationship between technical controls and data privacy.
· Apply privacy best practices, such as digital□footprint reduction, minimization, and retention policies, and privacy□by□design, to scenario□based situations.

TEIT 1420 Amazon Certified Cloud Practitioner **2 Credits / 60 Clock-Hours**

Amazon Certified Cloud Practitioner introduces Amazon Web Services (AWS), a leading Cloud Computing platform. Students engage with major AWS components and prepare for the AWS Certified Cloud Practitioner exam. The course develops comprehensive AWS Cloud knowledge, preparing students for diverse professional roles and responsibilities.

Objectives:
• Identify the core concepts and benefits of cloud computing and AWS architecture.
• Describe key AWS services and their use cases in cloud solutions.
• Demonstrate knowledge of security, compliance, and shared responsibility within AWS.
• Interpret AWS pricing models and strategies for cost management in cloud deployment.
• Prepare for the AWS Certified Cloud Practitioner exam by applying learned concepts and real-world scenarios.

TEIT 1500 Introduction to Scripting **1 Credit / 30 Clock-Hours**

Introduction to Scripting provides instruction on basic scripting concepts. Students are introduced to scripting fundamentals to automate tasks that would otherwise be performed manually. Students explore the practical use and management of scripts to perform system administration functions.

Objectives:
• Demonstrate an understanding of the features of scripting languages.
• Implement critical thinking and problem-solving skills through practical exercises.
• Perform automation of systems tasks and functions.

TEIT 1600 Microsoft 365 Fundamentals **3 Credits / 90 Clock-Hours**

The Microsoft 365 Fundamentals course provides instruction on how Microsoft 365 solutions address common organizational technology challenges including productivity, collaboration, and communication. Topics include endpoint and application management, desktop virtualization, automated operating system deployment, Microsoft 365 licensing, deployment and migration assistance, and product support options. This course aligns with the objectives of the Microsoft MS 900 certification exam.

Objectives:
• Identify and describe cloud concepts.
• Describe core Microsoft 365 services and solutions.
• Describe security, compliance, privacy, and trust in Microsoft 365.
• Compare and contrast Microsoft 365 licensing, pricing, and support option.

TEIT 1801 Information Technology Fundamentals Practicum **1 Credit / 30 Clock-Hours**

Information Technology Fundamentals Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1811 A+ Core I Practicum **1 Credit / 30 Clock-Hours**

A+ Core I Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1815 Security+ Practicum **1 Credit / 30 Clock-Hours**

Security+ Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
· Identify areas for improvement of certification learning objectives.
· Demonstrate competency by passing practice tests.
· Demonstrate proficiency in test-taking strategies.
· Schedule and take the certification exam.

TEIT 1821 A+ Core II Practicum **1 Credit / 30 Clock-Hours**

A+ Core II Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1831 Computer Networks I and II Practicum **1 Credit / 30 Clock-Hours**

Computer Networks I and II Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2150 Cisco CCNA Enterprise Networking, Security, and Automation (ENSA) **3 Credits / 90 Clock-Hours**

The Cisco Certified Networking Associate (CCNA) Enterprise Networking, Security, and Automation course covers the architecture, security, and operation of an enterprise network, along with introducing new ways in which network engineers interact with programmable infrastructure. Gain skills to configure and troubleshoot enterprise networks, learn to identify and protect against cybersecurity threats, and discover key concepts of software-defined networking, including controller-based architectures and application programming interfaces (APIs).

Objectives:
• Configure routers and switches using OSPF in point-to-point and multiaccess networks.
• Mitigate threats and enhance network security using access control lists and security best practices.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Explore virtualization, SDN, and how APIs and configuration management tools enable network automation.

TEIT 2350 CompTIA Project + **3 Credits / 90 Clock-Hours**

This course studies the planning and processes involved in an information technology project. Topics include planning, scheduling, and controlling aspects of a project during its life cycle. The course introduces students to project management and explains project management as it applies to managing information technology. It also helps students develop the skills required to initiate, plan, execute, control, and close projects. This course prepares students for exams such as the CompTIA Project + certification exam.
Objectives:
• Explain the benefits of IT project management.
• Examine the project management lifecycle.
• Demonstrate how to establish a project charter and project team.
• Demonstrate project estimating and scheduling.
• Describe the creation of project plans and project reporting.

TEIT 2910 Special Projects I **1 Credit / 30 Clock-Hours**

Special Projects I provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2920 Special Projects II **2 Credits / 60 Clock-Hours**

Special Projects II provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2930 Special Projects III **3 Credits / 90 Clock-Hours**

Special Projects III provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2925 Networking and Cybersecurity Externship **3 Credits / 135 Clock-Hours**

Students will have the opportunity to develop real-world work experiences using knowledge and skills they have obtained in the program. Students will gain practical application of classroom skills through actual work situations. IT projects will be assigned to the student by cooperative businesses. Students will receive objective feedback on their performance each month. Customized student learning objectives will be developed addressing the individual needs of the organization and career interests of each student by the cooperative business and the student.

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Demonstrate ability to work independently.
• Demonstrate ability to receive constructive criticism.
• Write cooperatively with faculty and agency to create personalized objectives to be accomplished during the internship.

Ogden-Weber

TEIT 1000 Information Technology Fundamentals **2 Credits / 60 Clock-Hours**

The Information Technology Fundamentals course provides an overview of the various career pathways related to working with computers. Throughout the class, students will be introduced to computers, including their history, hardware, operating systems, system support, programming languages, software, databases, networking, data storage, and system security. During this course, the student will perform essential IT tasks commonly performed by end-users and entry-level IT professionals.

Objectives:
• Identify the major components of a computer and understand their function.
• Compare and contrast the differences between various operating systems.
• Demonstrate an understanding of basic principles of software and database development.
• Identify foundational terms used in computing.
• Identify security issues affecting the use of computers and networks.

TEIT 1040 Introduction to Virtualization **1 Credit / 30 Clock-Hours**

Introduction to Virtualization explores what virtualization is and the critical role it plays in IT. Learn how to install, configure, and maintain virtual machines as well as the availability, applications, and virtual appliances, including their role in virtualization.

Objectives:
• Explore virtualization and the benefits gained from a virtual environment.
• Demonstrate how to enable virtualization on a host system.
• Install operating systems on virtual machines.
• Import/Export virtual machines for use in different virtualization platforms.
• Configure basic processing, memory, storage, and networking in a virtual environment.
• Demonstrate how to copy, backup, and restore virtual machines.

TEIT 1100 Introduction to Networking **1 Credit / 30 Clock-Hours**

Introduction to Networking provides foundational-level instruction on the concepts, models, services, settings, protocols, topologies, and devices used in computer networks. Students also explore the Open Systems Interconnection (OSI) and Transmission Control Protocol/Internet Protocol (TCP/IP) models.

Objectives:
• Define common concepts and terms associated with computer networking.
• Identify and differentiate the purpose and function of common networking devices.
• Identify and differentiate common networking ports, protocols and services.
• Identify components of the OSI and TCP/IP models.
• Compare and contrast network topologies and access methods.

TEIT 1110 Introduction to Cybersecurity **1 Credit / 30 Clock-Hours**

This course will provide foundational cybersecurity knowledge in preparation for more advanced cybersecurity courses as well as an introduction to career prospects in cybersecurity.

Objectives:
• Identify various types of security software.
• Demonstrate the use of software to mitigate risk in a lab environment.
• Define security best practices.
• Analyze various software logs.
• Summarize major risk frameworks.
• Identify social engineering techniques.
• Identify accurate and trustworthy security news sources.
• Explore career opportunities in cybersecurity.

TEIT 1500 Introduction to Scripting **1 Credit / 30 Clock-Hours**

Introduction to Scripting provides instruction on basic scripting concepts. Students are introduced to scripting fundamentals to automate tasks that would otherwise be performed manually. Students explore the practical use and management of scripts to perform system administration functions.

Objectives:
• Demonstrate an understanding of the features of scripting languages.
• Implement critical thinking and problem-solving skills through practical exercises.
• Perform automation of systems tasks and functions.

TEIT 1665 Introduction to Servers **2 Credits / 60 Clock-Hours**

This course will focus on server hardware installation and management; datacenter infrastructure and networking; remote management of server hardware; and other server concepts. This course will explore the differences between desktop and server hardware requirements.

Objectives:
• Identify the differences between desktop and server hardware.
• Explore core Datacenter Concepts such as design, infrastructure, and equipment.
• Build, maintain, troubleshoot, and support server hardware.

TEIT 1675 Windows Administration **3 Credits / 90 Clock-Hours**

This course will improve upon the Windows Administration concepts covered in A+ and will expose students to higher levels of Windows Administration tools and functions. This course will explore Windows in-depth administration concepts such as imaging, user settings and preferences, Windows security, Group Policy, registry settings, and general Windows troubleshooting.
Objectives:
- Install and configure Windows operating systems.
- Create and manage user accounts.
- Implement system recovery and file protection.
- Manage group policy settings.
- Perform remote management and troubleshooting.
- Explore system monitoring.

TEIT 1942 Service Desk Administration **2 Credits / 60 Clock-Hours**

This course explores the purpose of service desk software to prepare students for success in a service desk position. Course activities give students the opportunity to improve their customer service, documentation, and troubleshooting skills. Students analyze the purpose of some of the common metrics used for evaluation by service desk managers, as well as their drawbacks.

Course Objectives

- Explore common tasks associated with Service Desk administration.
- Evaluate the metrics used within a Service Desk.
- Practice Communication skills used by Service Desk Agents.
- Expand documentation and knowledge base processes and skills.

TEIT 2250 Ethical Hacking **3 Credits / 90 Clock-Hours**

Ethical Hacking teaches fundamental network attack strategies and countermeasures. Students learn to use various penetration testing tools to analyze network vulnerabilities and how to counter them and improve network security. This course aligns with the Certified Ethical Hacker (CEH) objectives.

Objectives:
- Perform: reconnaissance, scanning, and enumeration.
- Demonstrate Access: Obtain login credentials, administrative access and escalate privileges, access by cracking.
- Perform Attacks: Perform passive and active online attacks and infrastructure attacks.
- Demonstrate Defense Techniques: Defend systems and devices, implement defensive systems, scan for vulnerabilities.

TEIT 2270 Cybersecurity Analysis **3 Credits / 90 Clock-Hours**

Cybersecurity Analysis teaches threat and vulnerability management and how to employ tools and methods to secure data and infrastructure and respond to security incidents. The CompTIA CySA+ objectives are covered and serves as a foundation for advanced security credentials.

Objectives:
• Implement appropriate tools and methods to perform a reconnaissance of a system or network.
• Gather data and analyze the results of a reconnaissance.
• Describe and implement techniques and procedures needed to secure an organization.
• Classify threat data or activities for their impact on a security incident.
• Manage incident response, recovery, and reporting

TEIT 2300 Linux + **3 Credits / 90 Clock-Hours**

Linux + provides instructions on how to install, configure, manage, and maintain a Linux server. Topics include: SSH, VNC, Webmin, NIS and LDAP. Students learn to install, configure, and administer a Linux server. This course aligns with the CompTIA Linux + objectives.

Objectives:
• Configure the Linux file systems.
• Configure file sharing services.
• Configure network services.
• Demonstrate competency with Linux Administration Tools.

TEIT 2900 IT Externship **2 Credits / 90 Clock-Hours**

Students will have the opportunity to develop real-world work experiences using knowledge and skills they have obtained in the program. Students will gain practical application of classroom skills through actual work situations. IT projects will be assigned to the student by cooperative businesses. Students will receive objective feedback on their performance each month. Customized student learning objectives will be developed addressing the individual needs of the organization and career interests of each student by the cooperative business and the student.

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Demonstrate ability to work independently.
• Demonstrate ability to receive constructive criticism.
• Write cooperatively with faculty and agency to create personalized objectives to be accomplished during the internship.

TEIT 2910 Special Projects I **1 Credit / 30 Clock-Hours**

Special Projects I provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2920 Special Projects II **2 Credits / 60 Clock-Hours**

Special Projects II provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2930 Special Projects III **3 Credits / 90 Clock-Hours**

Special Projects III provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

Salt Lake

TEIT 1000 Information Technology Fundamentals **2 Credits / 60 Clock-Hours**

The Information Technology Fundamentals course provides an overview of the various career pathways related to working with computers. Throughout the class, students will be introduced to computers, including their history, hardware, operating systems, system support, programming languages, software, databases, networking, data storage, and system security. During this course, the student will perform essential IT tasks commonly performed by end-users and entry-level IT professionals.

Objectives:
• Identify the major components of a computer and understand their function.
• Compare and contrast the differences between various operating systems.
• Demonstrate an understanding of basic principles of software and database development.
• Identify foundational terms used in computing.
• Identify security issues affecting the use of computers and networks.

TEIT 1110 Introduction to Cybersecurity **1 Credit / 30 Clock-Hours**

This course will provide foundational cybersecurity knowledge in preparation for more advanced cybersecurity courses as well as an introduction to career prospects in cybersecurity.

Objectives:
• Identify various types of security software.
• Demonstrate the use of software to mitigate risk in a lab environment.
• Define security best practices.
• Analyze various software logs.
• Summarize major risk frameworks.
• Identify social engineering techniques.
• Identify accurate and trustworthy security news sources.
• Explore career opportunities in cybersecurity.

TEIT 1150 Cisco CCNA Introduction to Networks **3 Credits / 90 Clock-Hours**

CCNA Introduction to Networks curriculum introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the Internet and across modern computer networks. Learn to build simple local area networks (LANs) that integrate IP addressing schemes, configure foundational network security, and perform basic configurations for routers and switches.

Objectives:
• Build simple LANs, perform basic configurations for routers and switches, and implement IPv4 and IPv6 addressing schemes.
• Configure routers, switches, and end devices to provide access to local and remote network resources and to enable end-to-end connectivity between remote devices.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Configure and troubleshoot connectivity of a small network using security best practices.

TEIT 1160 Cisco CCNA Switching, Routing, and Wireless Essentials (SWRE) **3 Credits / 90 Clock-Hours**

The Cisco CCNA Switching, Routing, and Wireless Essentials (SWRE) course focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area network (WLAN) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate local area network (LAN) security threats, and configure and secure a basic WLAN.

Objectives:
• Utilizing routers, switches and wireless devices, configure and troubleshoot VLANs, Wireless LANs and Inter-VLAN routing.
• Configure and troubleshoot redundancy on a switched network using STP and EtherChannel.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2150 Cisco CCNA Enterprise Networking, Security, and Automation (ENSA) **3 Credits / 90 Clock-Hours**

The Cisco Certified Networking Associate (CCNA) Enterprise Networking, Security, and Automation course covers the architecture, security, and operation of an enterprise network, along with introducing new ways in which network engineers interact with programmable infrastructure. Gain skills to configure and troubleshoot enterprise networks, learn to identify and protect against cybersecurity threats, and discover key concepts of software-defined networking, including controller-based architectures and application programming interfaces (APIs).

Objectives:
• Configure routers and switches using OSPF in point-to-point and multiaccess networks.
• Mitigate threats and enhance network security using access control lists and security best practices.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Explore virtualization, SDN, and how APIs and configuration management tools enable network automation.

TEIT 2250 Ethical Hacking **3 Credits / 90 Clock-Hours**

Ethical Hacking teaches fundamental network attack strategies and countermeasures. Students learn to use various penetration testing tools to analyze network vulnerabilities and how to counter them and improve network security. This course aligns with the Certified Ethical Hacker (CEH) objectives.

Objectives:
• Perform: reconnaissance, scanning, and enumeration.
• Demonstrate Access: Obtain login credentials, administrative access and escalate privileges, access by cracking.
• Perform Attacks: Perform passive and active online attacks and infrastructure attacks.
• Demonstrate Defense Techniques: Defend systems and devices, implement defensive systems, scan for vulnerabilities.

TEIT 2270 Cybersecurity Analysis **3 Credits / 90 Clock-Hours**

Cybersecurity Analysis teaches threat and vulnerability management and how to employ tools and methods to secure data and infrastructure and respond to security incidents. The CompTIA CySA+ objectives are covered and serves as a foundation for advanced security credentials.

Objectives:
• Implement appropriate tools and methods to perform a reconnaissance of a system or network.
• Gather data and analyze the results of a reconnaissance.
• Describe and implement techniques and procedures needed to secure an organization.
• Classify threat data or activities for their impact on a security incident.
• Manage incident response, recovery, and reporting

TEIT 2300 Linux + **3 Credits / 90 Clock-Hours**

Linux + provides instructions on how to install, configure, manage, and maintain a Linux server. Topics include: SSH, VNC, Webmin, NIS and LDAP. Students learn to install, configure, and administer a Linux server. This course aligns with the CompTIA Linux + objectives.

Objectives:
• Configure the Linux file systems.
• Configure file sharing services.
• Configure network services.
• Demonstrate competency with Linux Administration Tools.

TEIT 2920 Special Projects II **2 Credits / 60 Clock-Hours**

Special Projects II provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

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TEIT 1010 Orientation **1 Credit / 30 Clock-Hours**

Orientation is designed to introduce students to the program and degree pathway for the CIS department. Students will be introduced to the curriculum, pathways, and industry certifications. Students will be introduced to the learning model utilized in the department to include; online/hybrid instruction, required clock hours in class, and program outcomes. Students will learn how to utilize software platforms used in the program for learning (e.g., Canvas, NetAcad, and Packet Tracer).

Objectives:
• Describe the coursework, pathway, certificates, and degree.
• Describe and operate within the CIS department educational model.
• Describe the industry certifications and specialized departmental badges.
• Demonstrate proficiency with Canvas, NetAcad, and Packet Tracer.

TEIT 1130 Networking Essentials **2 Credits / 60 Clock-Hours**

Networking Essentials will introduce students to the importance of networking in a digital world and introduced network essentials required in many business functions today including business critical data and operations, cybersecurity, and much more. Students will learn to install a home and small business network, develop basic network troubleshooting skills, and recognize network threats and basic mitigation techniques.

Objectives:
• Plan and install simulated home or small business networks and wireless networks.
• Verify settings and troubleshoot network connectivity.
• Identify and mitigate network security threats.

TEIT 1500 Introduction to Scripting **1 Credit / 30 Clock-Hours**

Introduction to Scripting provides instruction on basic scripting concepts. Students are introduced to scripting fundamentals to automate tasks that would otherwise be performed manually. Students explore the practical use and management of scripts to perform system administration functions.

Objectives:
• Demonstrate an understanding of the features of scripting languages.
• Implement critical thinking and problem-solving skills through practical exercises.
• Perform automation of systems tasks and functions.

TEIT 1550 Information Security Fundamentals **3 Credits / 90 Clock-Hours**

This course will teach the knowledge and skills required to make clear and conscious decisions about using real-world penetration and vulnerability testing tools. Students will learn what mitigation techniques are available and be able to recommend the right one given the scenario. Students will be able to conduct end-to-end assessments of IoT systems and Networks and identify any vulnerabilities that exist.

Objectives:
• Conduct end-to-end security assessments of IoT systems to demonstrate vulnerabilities.
• Gain Hands-on experience with IoT prototypes.
• Recommend threat mitigation measures to minimize the risk in IoT solutions and networks.
• Become proficient using real-world penetration and vulnerability testing tools such as Kali Linux.

TEIT 2310 Cybersecurity Essentials **3 Credits / 90 Clock-Hours**

Cybersecurity Essentials will introduce students to the essentials of network security concepts using Cisco equipment. Students will become familiar with network attackers and their attacks, security basics, network and web security, cryptography, operational security, firewalls, adaptive security appliances, policies and procedures related to network security.

Objectives:
• Describe security threats facing modern network infrastructures and secure network device access.
• Describe authentication, authorization, and access principles for network access and implement AAA on network devices.
• Mitigate network threats utilizing access control lists.
• Secure network management and reporting channels.
• Configure firewall and adaptive security appliances (ASA).
• Configure site-to-site VPNs utilizing the IPsec protocol.
• Describe and effective security policies related to the administration and security of a routed network.

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TEIT 1150 Cisco CCNA Introduction to Networks **3 Credits / 90 Clock-Hours**

CCNA Introduction to Networks curriculum introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the Internet and across modern computer networks. Learn to build simple local area networks (LANs) that integrate IP addressing schemes, configure foundational network security, and perform basic configurations for routers and switches.

Objectives:
• Build simple LANs, perform basic configurations for routers and switches, and implement IPv4 and IPv6 addressing schemes.
• Configure routers, switches, and end devices to provide access to local and remote network resources and to enable end-to-end connectivity between remote devices.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Configure and troubleshoot connectivity of a small network using security best practices.

TEIT 1160 Cisco CCNA Switching, Routing, and Wireless Essentials (SWRE) **3 Credits / 90 Clock-Hours**

The Cisco CCNA Switching, Routing, and Wireless Essentials (SWRE) course focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area network (WLAN) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate local area network (LAN) security threats, and configure and secure a basic WLAN.

Objectives:
• Utilizing routers, switches and wireless devices, configure and troubleshoot VLANs, Wireless LANs and Inter-VLAN routing.
• Configure and troubleshoot redundancy on a switched network using STP and EtherChannel.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.

TEIT 1600 Microsoft 365 Fundamentals **3 Credits / 90 Clock-Hours**

The Microsoft 365 Fundamentals course provides instruction on how Microsoft 365 solutions address common organizational technology challenges including productivity, collaboration, and communication. Topics include endpoint and application management, desktop virtualization, automated operating system deployment, Microsoft 365 licensing, deployment and migration assistance, and product support options. This course aligns with the objectives of the Microsoft MS 900 certification exam.

Objectives:
• Identify and describe cloud concepts.
• Describe core Microsoft 365 services and solutions.
• Describe security, compliance, privacy, and trust in Microsoft 365.
• Compare and contrast Microsoft 365 licensing, pricing, and support option.

TEIT 1610 Microsoft Azure Fundamentals **2 Credits / 60 Clock-Hours**

The Microsoft Azure Fundamentals course is an introduction to the Microsoft Azure cloud platform and includes instruction on foundational cloud concepts, the Azure management portal, Azure architecture and services, Azure storage and workloads, security and privacy in Azure, as well as Azure resource deployment, service monitoring, pricing, and cost management. This course aligns with the objectives of the Microsoft AZ 900 Azure Fundamentals certification exam.

Objectives:
• Describe Azure cloud concepts, services, workloads, security and privacy.
• Describe Azure core architectural components and services.
• Describe Azure compute and networking services.
• Describe Azure management and governance.

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1820 Certification Test Prep III **1 Credit / 30 Clock-Hours**

Certification Test Prep III provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1830 Certification Test Prep IV **1 Credit / 30 Clock-Hours**

Certification Test Prep IV provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1840 Certification Test Prep V **1 Credit / 30 Clock-Hours**

Certification Test Prep V provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1850 Certification Test Prep VI **1 Credit / 30 Clock-Hours**

Certification Test Prep VI provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2150 Cisco CCNA Enterprise Networking, Security, and Automation (ENSA) **3 Credits / 90 Clock-Hours**

The Cisco Certified Networking Associate (CCNA) Enterprise Networking, Security, and Automation course covers the architecture, security, and operation of an enterprise network, along with introducing new ways in which network engineers interact with programmable infrastructure. Gain skills to configure and troubleshoot enterprise networks, learn to identify and protect against cybersecurity threats, and discover key concepts of software-defined networking, including controller-based architectures and application programming interfaces (APIs).

Objectives:
• Configure routers and switches using OSPF in point-to-point and multiaccess networks.
• Mitigate threats and enhance network security using access control lists and security best practices.
• Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.
• Explore virtualization, SDN, and how APIs and configuration management tools enable network automation.

TEIT 2250 Ethical Hacking **3 Credits / 90 Clock-Hours**

Ethical Hacking teaches fundamental network attack strategies and countermeasures. Students learn to use various penetration testing tools to analyze network vulnerabilities and how to counter them and improve network security. This course aligns with the Certified Ethical Hacker (CEH) objectives.

Objectives:
• Perform: reconnaissance, scanning, and enumeration.
• Demonstrate Access: Obtain login credentials, administrative access and escalate privileges, access by cracking.
• Perform Attacks: Perform passive and active online attacks and infrastructure attacks.
• Demonstrate Defense Techniques: Defend systems and devices, implement defensive systems, scan for vulnerabilities.

TEIT 2270 Cybersecurity Analysis **3 Credits / 90 Clock-Hours**

Cybersecurity Analysis teaches threat and vulnerability management and how to employ tools and methods to secure data and infrastructure and respond to security incidents. The CompTIA CySA+ objectives are covered and serves as a foundation for advanced security credentials.

Objectives:
• Implement appropriate tools and methods to perform a reconnaissance of a system or network.
• Gather data and analyze the results of a reconnaissance.
• Describe and implement techniques and procedures needed to secure an organization.
• Classify threat data or activities for their impact on a security incident.
• Manage incident response, recovery, and reporting

TEIT 2300 Linux + **3 Credits / 90 Clock-Hours**

Linux + provides instructions on how to install, configure, manage, and maintain a Linux server. Topics include: SSH, VNC, Webmin, NIS and LDAP. Students learn to install, configure, and administer a Linux server. This course aligns with the CompTIA Linux + objectives.

Objectives:
• Configure the Linux file systems.
• Configure file sharing services.
• Configure network services.
• Demonstrate competency with Linux Administration Tools.

TEIT 2320 Hybrid Server Core **4 Credits / 120 Clock-Hours**

The Hybrid Server Core course teaches configuring and managing Windows Server on-premises, hybrid, and Infrastructure as a Service platform workloads. Learn on-premises and hybrid solutions, such as identity, security, management, compute, networking, storage, monitoring, and disaster recovery. Microsoft AZ-800 Certification objectives are covered.

Objectives:
• Deploy and manage Active Directory Domain Services in on-premises and cloud environments.
• Manage Windows Servers and workloads in a hybrid environment.
• Manage virtual machines and containers.
• Implement and manage an on-premises and hybrid networking infrastructure.
• Manage storage and file services.

TEIT 2330 Hybrid Server Advanced **4 Credits / 120 Clock-Hours**

The Hybrid Server Advanced course focuses more on security, high availability, backup and recovery, troubleshooting, monitoring, and migration from on-premises to Azure. Microsoft AZ-801 certification objectives are covered.

Objectives:
• Manage Windows Servers and workloads in a hybrid environment.
• Secure Windows Server on-premises and hybrid infrastructures.
• Implement and manage Windows Server high availability.
• Implement disaster recovery.
• Migrate servers and workloads.
• Monitor and troubleshoot Windows Server environments.

TEIT 2910 Special Projects I **1 Credit / 30 Clock-Hours**

Special Projects I provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2920 Special Projects II **2 Credits / 60 Clock-Hours**

Special Projects II provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2930 Special Projects III **3 Credits / 90 Clock-Hours**

Special Projects III provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

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TEIT 1012 Introduction to Python **2 Credits / 60 Clock-Hours**

Intro to Python will cover functional programming in python. Students will learn common functions, loops, operators, and conditionals. They will lean how to implement and manipulate lists, tuples, and dictionaries. They will create basic python scripts such as Fizzbuzz and text-based adventure games. This course will prepare students for further python training.

Objectives:
• Demonstrate understanding of Python functions, create custom functions.
• Demonstrate understanding of loops, and conditionals.
• Create a text-based adventure game utilizing all tools learned.

TEIT 1110 Introduction to Cybersecurity **1 Credit / 30 Clock-Hours**

This course will provide foundational cybersecurity knowledge in preparation for more advanced cybersecurity courses as well as an introduction to career prospects in cybersecurity.

Objectives:
• Identify various types of security software.
• Demonstrate the use of software to mitigate risk in a lab environment.
• Define security best practices.
• Analyze various software logs.
• Summarize major risk frameworks.
• Identify social engineering techniques.
• Identify accurate and trustworthy security news sources.
• Explore career opportunities in cybersecurity.

TEIT 1180 Network Service Technician **2 Credits / 60 Clock-Hours**

using industry-leading hardware, including Cisco Meraki, UniFi routers, switches, wireless access points, and Calix products. Students will gain hands-on experience configuring and optimizing network infrastructure for small to medium-sized businesses. In addition to technical skills, the course emphasizes professionalism in IT service delivery, focusing on effective ticket management, asset tracking, and maintaining high customer service standards. Graduates of this course will be prepared to implement robust network solutions while upholding industry best practices.

Objectives:
• Install, configure, and optimize routers, switches, and wireless access points from Cisco Meraki, UniFi, and Calix for small to medium-sized business environments.
• Troubleshoot and maintain wireless network performance, ensuring reliability and security across various hardware platforms.
• Master ticket management, asset tracking, and customer service techniques to deliver effective and professional IT solutions.
• Integrate technical and operational standards to design and manage scalable, secure, and efficient networking systems

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1820 Certification Test Prep III **1 Credit / 30 Clock-Hours**

Certification Test Prep III provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1830 Certification Test Prep IV **1 Credit / 30 Clock-Hours**

Certification Test Prep IV provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

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TEIT 1041 Introduction to Programming **3 Credits / 90 Clock-Hours**

This course introduces computer programming/software engineering and applications. Students learn the fundamentals of computer programming, simple controls and data structures, and operating system commands. Students learn to design, code, and test their own programs, and apply mathematical skills.

Objectives:
• Modify existing Python programs.
• Write original Python programs.
• Demonstrate the use of:
o Different data types and variables.
o Decision structures such as If and If-elif-else.
o Loops structures such as While, and For functions.
o Lists, Tuples, Dictionaries and Sets.
o String manipulations.
o Files (read and write).
o Classes and Object-Oriented Programming.

TEIT 1091 Introduction to Mobile Application Development **3 Credits / 90 Clock-Hours**

This course introduces students to the fundamentals of mobile application development. Students learn to design, code and test their own mobile applications.

Objectives:
• Create mobile apps using Android Studio.
• Debug mobile apps.
• Explain and use:
  o Techniques to create native app interfaces.
  o Different activities and pass data between them.
  o Activities to display list data in an app.
  o Persistent data to store, retrieve, and manipulate data files.
  o Hardware and device sensor APIs in programs in order to capture and integrate sensor data.
• Discuss how monetize and publish apps.

TEIT 1310 Website Design **3 Credits / 90 Clock-Hours**

This course focuses on design and construction of Web pages using HTML, Cascading Style Sheets, and JavaScript. Students will have hands-on experience creating and publishing web pages. This course also focuses on basics of hosting, publishing, promoting, and maintaining websites.

Objectives:
• Understand web hosting and critique website designs.
• Demonstrate use of HTML5 and Cascading Style Sheets (CSS) in developing web pages.
• Develop web pages using images, multimedia, tables, and forms.
• Apply basic JavaScripting to web pages.
• Publish, Promote, and Maintain a website.
• Evaluate and use Website Builders or Content Management Systems (CMS).

TEIT 1340 Digital Video Production **3 Credits / 90 Clock-Hours**

This course covers fundamentals of digital video production, including recording, editing, and uploading of video using current video-editing programs and techniques. Students will have hands-on experience with projects to help them apply current digital video production concepts.

Objectives:
• Explain how professional audio-visual production is directed and managed to create useful multimedia materials.
• Discuss basic video production techniques that make a quality recording and production.
• Create video/audio resources from concept inception through storyboarding, scripting, recording, editing and media conversion.
• Create digital video productions more effectively using graphics, titling, and/or channel masks in the video editing process.
• Create audio and video effects and animation.
• Prepare video for use in HTML pages, YouTube, or other multimedia storage locations.

TEIT 1500 Introduction to Scripting **1 Credit / 30 Clock-Hours**

Introduction to Scripting provides instruction on basic scripting concepts. Students are introduced to scripting fundamentals to automate tasks that would otherwise be performed manually. Students explore the practical use and management of scripts to perform system administration functions.

Objectives:
• Demonstrate an understanding of the features of scripting languages.
• Implement critical thinking and problem-solving skills through practical exercises.
• Perform automation of systems tasks and functions.

TEIT 1560 Practical Cybersecurity **4 Credits / 120 Clock-Hours**

Practical Cybersecurity delivers hands-on training in offensive and defensive security, including OSINT, network enumeration, web and cloud security, malware analysis, digital forensics, SIEM monitoring with Splunk, and incident response, bridging cybersecurity theory with real-world attack-and-defense practices.

Course Objectives:
• Conduct passive external open-source intelligence (OSINT) gathering and active internal network discovery using Sublist3r, Shodan, Maltego, and Nmap.
• Audit cloud infrastructure access policies, storage permissions, and source code pipelines using Prowler, Semgrep, and Snyk DevSecOps tooling.
• Analyze, exploit, and remediate web application security flaws; including SQL injection, Cross-Site Scripting (XSS), and parameter tampering; using browser developer tools and Burp Suite.
• Deploy, configure, and evaluate host firewalls, open-source antivirus engines, and Network Intrusion Detection Systems (NIDS) like Snort 3 to analyze malicious network packet traffic.
• Reverse-engineer weaponized document attachments and binary executables using oletools, custom YARA detection rules, and multi-engine hash enrichment via VirusTotal.
• Collect and correlate system telemetry from Linux authorization logs and Windows Sysmon events using Splunk Search Processing Language (SPL) to build real-time monitoring dashboards.
• Execute volatile memory acquisition and RAM forensics using FTK Imager and Volatility 3 to identify process tree anomalies, unbacked code execution, and in-memory implants.
• Analyze Command and Control (C2) framework architectures, cryptanalysis techniques, and privilege escalation methodologies within enterprise directory environments.

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1820 Certification Test Prep III **1 Credit / 30 Clock-Hours**

Certification Test Prep III provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1830 Certification Test Prep IV **1 Credit / 30 Clock-Hours**

Certification Test Prep IV provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1840 Certification Test Prep V **1 Credit / 30 Clock-Hours**

Certification Test Prep V provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1850 Certification Test Prep VI **1 Credit / 30 Clock-Hours**

Certification Test Prep VI provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2300 Linux + **3 Credits / 90 Clock-Hours**

Linux + provides instructions on how to install, configure, manage, and maintain a Linux server. Topics include: SSH, VNC, Webmin, NIS and LDAP. Students learn to install, configure, and administer a Linux server. This course aligns with the CompTIA Linux + objectives.

Objectives:
• Configure the Linux file systems.
• Configure file sharing services.
• Configure network services.
• Demonstrate competency with Linux Administration Tools.

TEIT 2441 Photoshop **3 Credits / 90 Clock-Hours**

This course is designed to teach the use of Photoshop. Students will gain hands-on experience from basic touch up and editing to advance editing and creation of graphics for various uses including images for the Websites.

Objectives:
• Perform photo corrections and work with selections and layers.
• Use masks and channels and work with typographic design.
• Perform vector drawing and advanced compositing.
• Prepare files for the Web and produce and understand how to print with consistent coloring.

TEIT 2500 Web Business **3 Credits / 90 Clock-Hours**

This course is an introduction to Web-based business. Students will learn business concepts relating to on-line and world-wide e-commerce. Also marketing concepts, design strategies, and technical issues as they relate to Web-based businesses will be discussed.

Objectives:
• Review technology infrastructure of the Internet and the World Wide Web.
• Understand the implications of selling on the web — regional and worldwide.
• Develop marketing concepts on the web in conjunction with social media, mobile, and online auctions.
• Explain how to improve efficiency and reduce costs.
• Discuss the environment of electronic commerce involving ethical, legal, and tax Issues.
• Explain web server hardware and software, electronic commerce software and associated security needs.
• Plan for electronic commerce including the implementation of payment systems that are commonly used.

TEBP 1200 Professionalism **3 Credits / 90 Clock-Hours**

Professionalism explores behaviors, attitudes, and human skills essential for workplace success. Students will study how to build strong customer relations and provide outstanding customer service in a diverse workplace. Students will use professional skills to prepare for potential career opportunities.

Objectives:
• Explain the importance of human skills for success in the workplace.
• Explore the foundations of a service culture and develop relationship management skills.
• Demonstrate preparedness for potential career opportunities.
• Practice acceptable workplace conduct, including self-management, willingness to learn, and workplace relationships.

TEBP 1650 Management Principles **2 Credits / 60 Clock-Hours**

Management principles will address strategies related to starting, owning, operating, and growing a small business. Students will explore marketing, financial management, leadership, ethics, and growth opportunities. Upon successful completion of this course, students will be able to demonstrate industry-level competency.

Objectives:
• Explore the human and legal aspects of starting and organizing a business.
• Practice analyzing and managing the financial aspects of a business including cash flow, financing, and profit management.
• Demonstrate an understanding of how to manage the operations of a business effectively and efficiently.

Mountainland

TEIT 1030 Artificial Intelligence Essentials **1 Credit / 30 Clock-Hours**

The Artificial Intelligence Essentials course provides a foundational understanding of artificial intelligence (AI) concepts and practical applications. The course focuses on key AI principles, machine learning basics, and the ethical considerations of AI in business and technology. Through a mix of theoretical discussions and hands-on exercises, students gain the knowledge necessary to understand AI's impact across industries.

Objectives:
• Discuss AI's role in enhancing business processes and decision-making.
• Explain the purpose and function of popular AI frameworks and tools.
• Discuss the ethical implications of AI, including bias, fairness, and accountability.

TEIT 1620 Introduction to Microsoft 365 **2 Credits / 60 Clock-Hours**

The Introduction to Microsoft 365 course provides instruction on how Microsoft 365 solutions address common organizational technology challenges including productivity, collaboration, and communication. Topics include endpoint and application management, desktop virtualization, automated operating system deployment, Microsoft 365 licensing, deployment and migration assistance, and product support options.

Objectives:
• Identify and describe cloud concepts.
• Describe core Microsoft 365 services and solutions.
• Describe security, compliance, privacy, and trust in Microsoft 365.
• Compare and contrast Microsoft 365 licensing, pricing, and support options.

TEIT 1630 Microsoft Windows Server Administration Fundamentals **2 Credits / 60 Clock-Hours**

The Microsoft Windows Server Administration Fundamentals course offers a hands-on introduction to Windows Server administration. The student will explore basic systems administration of workstations and servers in a Windows domain, emphasizing the use of Active Directory for common everyday add, move, and change tasks.

Objectives:
• Identify, define, and describe server roles, features, and services.
• Install, configure, and manage server roles and services including Domain Controllers, Active Directory, Group Policy, DHCP, DNS, and Remote Access Services.
• Recognize and implement the proper share permissions on File and Print Servers.
• Implement effective storage solutions using RAID and other fault-tolerant storage technologies.
• Identify the importance of security updates and software update packages.
• Perform server troubleshooting, performance tuning, and maintenance.
• Explain fault-tolerance and disaster recovery.
• Configure, manage, monitor, and troubleshoot security in a Directory Services Infrastructure.

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1945 Service Desk **2 Credits / 60 Clock-Hours**

This course provides students a hands-on service desk experience where they will become familiar with customer service, documentation, and troubleshooting skills needed to obtain a position as a service desk professional. This course also provides multiple opportunities to complete simulated real-world tickets related to computer support service desk.

Objectives:
• Explain the common tasks associated with the service desk.
• Demonstrate best practice techniques related to customer service.
• Create troubleshooting tools.
• Build clean Windows images for installation.
• Perform basic Active Directory tasks.
• Complete simulated Service Desk tickets.